Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

Title V
Permit: **V-03-055R1**
AGC FLAT GLASS NORTH AMERICA, INC. (AGC)
RICHMOND, KY.
September 25, 2007
BEN MARKIN, REVIEWER
Source ID: 21-151-00064
Agency Interest: 2796
Activity #: APE20070003

ADMINISTRATIVE AMENDMENT: ***V-03-055R1***

The Division received an application for a change of ownership from AGC Flat Glass North America, Inc. on September 18, 2007. Pursuant to 401 KAR 52: 020, Section 13, this modification is an administrative change which does not warrant a significant revision. Two 502 B10 activities including oil/water separator and dust collector for automated glass stacker that were approved on April 13, 2007 and July 17, 2007, respectively have been added to Section C of the permit. However, the permit number has been revised to reflect the change

PAST PERMITTING ACTION: ***V-03-055***

AFG Industries is an existing manufacturing plant that produces flat glass using the float process. Flat glass manufacturing operations consist of: the raw material handling, the melting furnace, the float or tin bath, the annealing lehr, the cutting and packaging section, the cullet return system, auxiliary services, and the emergency generator.

AFG Industries, Inc., is located on a site 6 km south of Richmond, Kentucky. The facility produces 600 tons per day of flat glass, which can be used for a number of applications including automobile windshields, architectural windows, appliances (stove, refrigerator glass), and decorative glass among other use types.

The facility was determined to be a major source and is currently operating under permit # V-97-010, which was issued on August 28, 1997. A detailed analysis and review of the best available control technology (BACT), Air Quality Impact Analysis, and Additional Impact Analysis was finalized prior to issuance of permit # V-97-010.

A renewal application was received on February 28, 2002 by the Division and was logged complete on December 04, 2003. There were no changes in the manufacturing process that significantly effect air emissions.

REGULATION APPLICABILITY:

The following regulations apply to the plant:

401 KAR 63:021, Existing sources emitting toxic air pollutants

401 KAR 60:005, Section (3)(1)(kk), Standards of performance for glass manufacturing plants

incorporating by reference 40 CFR 60, Subpart CC, applies to the glass melting furnace (Emission Unit 02). The furnace will produce most of the pollutants from the source. Pursuant to this regulation, emissions of particulate shall not exceed 1.0 lb/ton of glass produced for a modified flat glass furnace. Also the regulation requires the installation and operation of a continuous opacity monitor for the furnace.

401 KAR 59:010, New process operations, that set mass and opacity standards for particulate matter emission sources to which no other particulate standard applies. Many of the emission units are subject to a particulate matter mass standard under PSD but have no applicable opacity standard. Therefore, pursuant to this regulation, opacity standards will apply to all such emission units. These units are the raw material handling (Emission Unit 01).

401 KAR 63:010, Fugitive emissions, which sets standards to prevent fugitive emissions. Several emission units at the plant will be subject to this regulation – annealing lehr (Emission Unit 03) and cullet storage piles.

401 KAR 51:017 (40 CFR 52.21), Prevention of significant deterioration (PSD) of air quality applies to the plant which located in Madison County which is currently designated as *attainment* for all ambient air quality standards. The plant has the potential to emit more than 250 tons per year of one or more regulated criteria pollutants. Total source-wide emission of all criteria pollutants including fugitive emissions are:

Pollutant	**PTE* (ton/yr)**	**Actual Emission** (ton/yr)**
Carbon Monoxide	13.63	7.30
Nitrogen Oxides	1216.2	669.1
Sulfur Dioxide	220.25	145.3
Particulate Matter (PM_{10})	113.23	17.0
VOCs	57.9	27.89

*PTE – Potential to Emit

**Based on current data from Emission Survey Database

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COMMENTS:

1. The permittee has not proposed any alternative operating scenarios for any of the emission units.

2. Any indirect heat exchanger burning natural gas is considered to be in compliance with PM, SO_2 and opacity standard.

3. BACT limits for NOx set for the first three years in the initial Title V in 1997-(first12 months: 9.2lb/ton or 230 lb/hr, second 12 months: 8.5 lb/ton or 213 lb/hr of glass production) from the startup, was an on going process and has since been addressed.

4. BACT particulate emissions limits for raw material handling was set in the initial Title V in 1997, and compliance shall be demonstrated based on the equation below:

   To demonstrate compliance with the lb/hr particulate emission rate limitation, the rate will equal the monthly operating rate (tons/month) x Emission factor (lb PM/ton) / Hours of operation per month (hr/month) x [1 – control device efficiency].

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or record keeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.